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EXAMINER
LAU, HOI CHING

ART UNIT	PAPER NUMBER
2612	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/667,282

Applicant(s)

BOMAN ET AL.

Examiner

Hoi C. Lau

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 26-46 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/4/06, 8/16/06, 4/3/06, 12/5/05, 10/24/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1- 46 have been examined.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 34 recites the limitation "the pressure" in line 13. There is insufficient antecedent basis for this limitation in the claim.
3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "use by the device the encrypted security key to calculate a unique result; and storing, by the device, of the unique result" in lines 11-13 lacks clarity and it is now interpreted as "decrypting, by the device, of the encrypted security key; and storing, by the device, of the decrypted security key" which is referred in claim 28 and paragraph 98 in Specification.
4. Claims 14 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. They are lack of clarity of what is "selecting a container", what is "transmitting a request to server".

Claim Objections

5. Claim 15 is objected to because of the following informalities:

The phrase "obtainer" should be replaced with —container—at the end of claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 11-12, 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Mayor (U.S. 6,737,962).

Regarding **claim 1**, Mayor teaches a device, as a whole in view of the system comprises:

means for sensing at least one condition of the container (col. 3, line 26 – col. 4, line 42; col. 6, lines 46-56) ;

means for transmitting information relative to the at least one sensed condition to a location (figure 4) outside the container (col. 5, lines 7-23 and col. 6, line 49 – col. 9, line 23);

means for interpreting the at least one sensed condition (col. 6, line 49 – col. 9, line 23 and lines 30-57; col. 10, lines 38-57); and

wherein the means for interpreting is adapted to be disposed inside the container (col. 4, lines 1-42 and col. 10, lines 38-57).

Art Unit: 2612

As to **claim 11 and 12**, Mayor teaches the multiple sensors including smoke sensor as a peripheral sensor and the series input 220 is the interface for the sensor inside the container (col. 6, lines 46-56).

Regarding **claim 44**, Mayor teaches a method comprises:

placing a sensor on any trailer (col. 4, lines 38-40) and the owner and/or installer would determine where on the trailer the trailer he or she wishes to install housing and the enclosed contents (col. 8, lines 20-23; col. 6, lines 46-53 and col. 8, lines 8-19);

monitoring the sensor condition via a data unit (128; figure 4) located within the container (col. 4, lines 17-42, col. 6, lines 30-56; col. 7, lines 59-67);

determining, by the data unit, whether a condition has occurred based on sense changes in value sensed by the sensor (col. 4, lines 17-42, col. 6, lines 30-56; col. 7, lines 59-67);

communicating, by the data unit, of a result of the determining step to an antenna (antenna unit for GPS and pager signal figure 4) interoperably connected to the data unit and located relative to the container in a position for transmitting data to a location outside the container (figure 4; col. 8, line 49 – col. 7, line 49); and

transmitting, by the antenna, of information relative to the communicating step (figure 4; col. 8, line 49 – col. 7, line 49).

7. Claims 33, 40-43 and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Gagnon et al. (US 5,939,982).

Regarding **claim 33**, Gagnon teaches a device comprises:

Art Unit: 2612

means for sensing at least one condition of the container;
means for establishing a baseline value for the sensed condition;
means for defining a sensed condition value threshold; and
means for determining from the sensed condition value threshold and the sensed condition whether a security breach has occurred (abstract; figure 1; col. 1, line 44 – col. 3, line 6).

As to **claim 40**, Gagnon teaches the means for sensing a condition comprise a pressure sensor (col. 5, lines 15-25).

Regarding **claim 41**, Gagnon teaches a device for monitoring the condition of a container comprises:

means for sensing movement of the container door; means for transmitting information relative to the sensed container door movement; means for interpreting the sensed door movement; wherein the means for interpreting is disposed inside the container; and wherein the means for transmitting is disposed relative to the container for transmission of the sensed door movement to a location outside the container (abstract; figure 1; col. 1, line 45- col. 3, line 6).

Regarding **claim 42**, Gagnon teaches a device comprises: means for detecting a condition of the container and its contents; means for establishing a baseline condition value, the baseline condition value being related to normal fluctuations in the condition of the container and its contents experienced during transport; means for defining a condition threshold; and means for determining from the condition threshold and the

Art Unit: 2612

detected condition, the security condition of the container (abstract; figure 1; col. 1, line 35- co. 3, line 6).

As to **claim 43**, Gagnon teaches the means for sensing a condition comprise a pressure sensor (col. 5, lines 15-25).

Regarding **claim 46**, Gagnon teaches a device comprises: means for sensing at least one condition of the container; means for transmitting information relative to the container position and the at least one sensed condition to a location outside the container; means for interpreting the at least one sensed condition; and wherein the means for interpreting is adapted to be disposed inside the container (abstract; figure 1; col. 1, line 35- co. 3, line 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 9-10,45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayor (U.S. 6,737,962).

As to **claim 2**, Mayor teaches the device 128 can be placed on any trailer (col. 4, lines 38-40) and the owner and/or installer would determine where on the trailer the trailer he or she wishes to install housing and the enclosed contents (col. 8, lines 20-

Art Unit: 2612

23). Also, it is inherently teaches the container includes at least one door when constitutes with the door sensor (col. 6, lines 46-53 and col. 8, lines 8-19).

It fails to specific mention it is adapted for mounting relative to the container between a region of the door and an adjacent region of the container.

However, Mayor states that the device (128) encloses various components of alarm and includes door sensor inputs (col. 4, lines 11-15 and col. 6, lines 46-56).

It would have been obvious to one of ordinary skill in the art the door sensors as taught by Mayor could constitute with the device module 128 as a unitary structure to enhance the portable alarm kit feature to facilitate the steps of installation. Further, it would have been obvious to one of ordinary skill in the art the unitary structure device as above would be installed at a position relative to the container between a region of the door and an adjacent region of the container when incorporate the operation of the door sensor because the device needs to be proximate with the door.

As to **claim 9**, Mayor meets the limitation of claim except it fails to specific mention the means for transmitting information is disposed outwardly of the sensor and adapted for positioning outside the door of the container.

However, it would have been obvious to one of ordinary skill in the art the transmitter would position outwardly of the sensor if they are integrated as a unitary structure while the sensor would have to be installed in a position near the door which would constitute the transmitter to position outside the door because it would enhance the communication efficient with the remote device (also see figure 4 and col. 5, lines 7-23 and col. 6, line 49 – col. 9, line 23).

Art Unit: 2612

As to **claim 10**, Mayor teaches including means for receiving information (figure 4 and col. 5, lines 7-23 and col. 6, line 49 – col. 9, line 23).

Regarding **claim 45**, Mayor teaches a method comprises:

placing a sensor on any trailer (col. 4, lines 38-40) and the owner and/or installer would determine where on the trailer the trailer he or she wishes to install housing and the enclosed contents (col. 8, lines 20-23; col. 6, lines 46-53 and col. 8, lines 8-19);

monitoring the sensor condition via a data unit (128; figure 4) located within the container (col. 4, lines 17-42, col. 6, lines 30-56; col. 7, lines 59-67);

determining, by the data unit, whether a security breach of the door has occurred based on a change in a condition sensed by the sensor (col. 4, lines 17-42, col. 6, lines 30-56; col. 7, lines 59-67);

communicating, by the data unit, of a result of the determining step to an antenna (antenna unit for GPS and pager signal figure 4) interoperably connected to the data unit and located (figure 4; col. 8, line 49 – col. 7, line 49); and

transmitting, by the antenna, of information relative to the communicating step (figure 4; col. 8, line 49 – col. 7, line 49).

It fails to specific mention the antenna locates adjacent to and outside of the container.

However, it would have been obvious to one of ordinary skill in the art the transmitter would position outwardly of the sensor if they are integrated as a unitary structure while the sensor would have to be installed in a position near the door which would constitute the transmitter to position outside the door because it would enhance

Art Unit: 2612

the communication efficient with the remote device (also see figure 4 and col. 5, lines 7-23 and col. 6, line 49 – col. 9, line 23).

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mayor (U.S. 6,737,962), in view of Austin, Jr. (US 6,381,977).

As to **claim 3**, Mayor meets the limitation of claim except it fails to specifically mention the adjacent region of the container comprises a vertical beam and adjacent C-channel and the location within the container for mounting at least a portion of the device comprises an area across the vertical beam and adjacent C-channel.

Austin teaches the conventional container have the roof or side panels (adjacent region) attached to the front and door frame or assembly by means of sheet metal frame extensions which associates with vertical beam (116) wherein the metal extensions should have a U-shape (C-channel) channel strengthening reinforcement (figure 8,19; col. 7, lines 16-65 and col. 8, lines 34-52).

It would have been obvious to one of ordinary skill in the art to associate the structure of the container as taught by Austin to the conventional container as Mayor because it would enhance the container to withstand the weld head pressure and would be obvious to install at least a portion of the device within the area across the vertical beam and adjacent C-channel in order to position the device close proximate to the door and the mounting area would have been routine experimentation and optimization in the absence of criticality.

Art Unit: 2612

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mayor (U.S. 6,737,962), in view of Austin, Jr. (US 6,381,977), in further view of background of Greenwaldt (U.S. 2004/0041708).

As to **claim 4**, Mayor teaches the use of door sensor to monitor the condition of the container (see rejection of claim 1) except it fails to show the at least one sensed condition comprises a sensed pressure of the door against the region of the container, and the means for sensing comprises at least one pressure sensor adapted to extend between the door and the region of the container.

Background of Greenwaldt teaches the use of pressure sensor for detecting the opening of doors.

It would have been obvious to one of ordinary skill in the art the door sensor as taught by Mayor would implement as a door pressure sensor as disclosed in background of Greenwaldt because the pressure sensor would detect relative movement between two surface in such way could be disposed to extend between the door and the region of the container.

11. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayor (U.S. 6,737,962), in view of background of Greenwaldt (U.S. 2004/0041708).

Regarding **claim 26**, Mayor teaches a method of detecting a security breach of a container comprises:

Art Unit: 2612

placing a door sensor on any trailer (col. 4, lines 38-40) and the owner and/or installer would determine where on the trailer the trailer he or she wishes to install housing and the enclosed contents (col. 8, lines 20-23; col. 6, lines 46-53 and col. 8, lines 8-19);

monitoring the sensor condition via a data unit (128; figure 4) located within the container (col. 4, lines 17-42, col. 6, lines 30-56; col. 7, lines 59-67);

determining, by the data unit, whether a security breach of the door has occurred based on the changed condition of the sensor (col. 4, lines 17-42, col. 6, lines 30-56; col. 7, lines 59-67);

communicating, by the data unit, of a result of the determining step to an antenna (antenna unit for GPS and pager signal figure 4) interoperably connected to the data unit (figure 4; col. 8, line 49 – col. 7, line 49); and

transmitting, by the antenna, of information relative to the communicating step (figure 4; col. 8, line 49 – col. 7, line 49).

It fails to specific mention the use of pressure door sensor which adapted adjacent a structural member and a door of the container; the data unit determines whether a security breach by change in pressure sensed by the pressure sensor; the antenna are located adjacent to and outside of the container.

However, Mayor states that the device (128) encloses various components of alarm and includes door sensor inputs (col. 4, lines 11-15 and col. 6, lines 46-56).

It would have been obvious to one of ordinary skill in the art the door sensors as taught by Mayor could constitute with the device module 128 as a unitary structure to

Art Unit: 2612

enhance the portable alarm kit feature to facilitate the steps of installation. Further, it would have been obvious to one of ordinary skill in the art the unitary structure device as above would be installed at a position relative to the container between a region of the door and an adjacent region of the container when incorporate the operation of the door sensor because the device needs to be proximate with the door.

Background of Greenwaldt teaches the use of pressure sensor for detecting the opening of doors.

It would have been obvious to one of ordinary skill in the art the door sensor as taught by Mayor would implement as a door pressure sensor as disclosed in background of Greenwaldt because the pressure sensor would detect relative movement between two surface in such way could be disposed to extend between the door and the region of the container.

It would have been obvious to one of ordinary skill in the art the transmitter would position outwardly of the sensor if they are integrated as a unitary structure while the sensor would have to be installed in a position near the door which would constitute the transmitter (antenna) to position outside the door because it would enhance the communication efficient with the remote device (also see figure 4 and col. 5, lines 7-23 and col. 6, line 49 – col. 9, line 23).

As to **claim 27**, Mayor teaches receiving, by reader, of the information from the antenna (figure 4 and col. 5, lines 7-23 and col. 6, line 49 – col. 9, line 23; col. 8, lines 20-23; col. 6, lines 46-53 and col. 8, lines 8-19).

Art Unit: 2612

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mayor (U.S. 6,737,962), in view of Austin, Jr. (US 6,381,977), and background of Greenwaldt (U.S. 2004/0041708), in further view of Reimer et al. (US 6,556,149).

As to **claim 5**, the combination meets the limitation of claim except it fails to show the container door further includes a gasket, and the sensed pressure comprises the pressure of the door gasket against the pressure sensor.

However, Mayor teaches a gasket is incorporated with the enclosure 128.

Reimer teaches a gasket surrounding the door respectively and a pressure sensor (col. 9, lines 20-30 and lines 41-57).

It would have been obvious to one of ordinary skill in the art to implement the gasket as taught by Reimer to the container door of May in view of the pressure sensor as the combination shown above (see rejection of claim 4) because it would provide protection against the environment (Mayor: col. 4, lines 16-32) while serve as a dual function when against the pressure sensor (Reimer: col. 9, lines 41-57).

13. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayor (U.S. 6,737,962), in view of Keillor et al. (US 5,917,433).

As to **claim 6 and 7**, Mayor teaches multiple sensors are used for monitoring the condition of the container (col. 6, lines 46-56).

It fails to show the at least one sensed condition comprises a sensed light, and wherein the means for sensing comprises a light sensor disposed inside the container

Art Unit: 2612

and a sensed motion, and wherein the means for sensing comprises a motion sensor disposed inside the container.

Keillor teaches the at least one sensed condition comprises a sensed light, and wherein the means for sensing comprises a light sensor disposed inside the container, in addition to the door sensor (col. 7, lines 1-17). Further, it teaches a sensed motion, and wherein the means for sensing comprises a motion sensor disposed inside the container.

It would have been obvious to one of ordinary skill in the art to combine the light sensor as taught by Keillor to the multiple sensors monitoring device as taught by Mayor because the light sensor provide detection for monitoring the noise level within the container (Keillor: col. 7, lines 1-17). In addition, the combination of the motion sensor to Mayor's would provide detection for any movement within the container.

14. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mayor (U.S. 6,737,962), in view of Zarlengo et al. (US 2002/0061758).

As to **claim 8**, Mayor teaches multiple sensors are used for monitoring the condition of the container (col. 6, lines 46-56).

It fails to show the at least one sensed condition comprises a sensed radioactivity, and wherein the means for sensing comprises a radioactivity sensor 27 disposed inside the container.

In the analogous, Zarlengo teaches a sensed condition comprises a sensed radioactivity, and wherein the means for sensing comprises a radioactivity sensor

Art Unit: 2612

disposed inside the container along with door condition sensing (figure 1; paragraphs 16-17).

It would have been obvious to one of ordinary skill in the art to combine the radioactivity sensor as taught by Keillor to the multiple sensors monitoring device as taught by Mayor because it would provide detection of radiation threats in the cargo container.

15. Claim 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gagnon et al. (US 5,939,982).

Regarding claim 23-24, Gagnon teaches a device for determining whether a security breach of a container has occurred by means for detecting radio frequency band exerted by a door of the container; means for establishing a baseline radio frequency band value, the baseline radio frequency band value being related to a calculated mean value from at least two radio frequency band detections; means for defining a threshold; and means for determining from the threshold and the detected whether a security breach has occurred, wherein the means for defining a threshold accumulates at least two sensed values and calculates an average value from the at least two sensed values (abstract; figure 1;).

It fails to show the use of this implementation with the pressure sensor.

However, it mentions additional sensor such as pressure sensor could be used (col. 5, lines 15-25).

Art Unit: 2612

It would have been obvious to one of ordinary skill in the art to associate the above algorithm with the pressure sensor because it would provide enhance the efficient determination of the pressure sensing condition.

16. Claim 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gagnon et al. (US 5,939,982), in view of Mayor (U.S. 6,737,962) and Austin, Jr. (US 6,381,977), in further view of background of Greenwaldt (U.S. 2004/0041708).

As to **claim 34**, Gagnon meets the limitation of claim and it mentions additional sensor such as pressure sensor could be used (col. 5, lines 15-25).

It would have been obvious to one of ordinary skill in the art to associate the above algorithm with the pressure sensor because it would provide enhance the efficient determination of the pressure sensing condition. Further, the container would be obvious is of the type having least one door pivotally mounted to the container when corporate with the sensing of door movement if the container is as any conventional cargo container (see US 6,400,266 for conventional container).

In the analogous art, Mayor teaches a method of detecting a security breach of a container comprises:

placing a door sensor on any trailer (col. 4, lines 38-40) and the owner and/or installer would determine where on the trailer the trailer he or she wishes to install housing and the enclosed contents (col. 8, lines 20-23; col. 6, lines 46-53 and col. 8, lines 8-19).

Art Unit: 2612

It would have been obvious to one of ordinary skill in the art to combine the vary installed location of sensing device as taught by Mayor to Gagnon because it would provide the flexible for installation.

The combination fails to specific mention the use of pressure door sensor wherein the sensing device is adapted for positioning between the door and the container for sensing the pressure exerted by the door against the device.

However, Mayor states that the device (128) encloses various components of alarm and includes door sensor inputs (col. 4, lines 11-15 and col. 6, lines 46-56).

It would have been obvious to one of ordinary skill in the art the door sensors as taught by Mayor could constitute with the device module 128 as a unitary structure to enhance the portable alarm kit feature to facilitate the steps of installation. Further, it would have been obvious to one of ordinary skill in the art the unitary structure device as above would be installed at a position relative to the container between a region of the door and an adjacent region of the container when incorporate the operation of the door sensor because the device needs to be proximate with the door.

Background of Greenwaldt teaches the use of pressure sensor for detecting the opening of doors.

It would have been obvious to one of ordinary skill in the art the door sensor as taught by Mayor would implement as a door pressure sensor as disclosed in background of Greenwaldt because the pressure sensor would detect relative movement between two surface in such way could be disposed to extend between the door and the region of the container.

Art Unit: 2612

It would have been obvious to one of ordinary skill in the art the transmitter would position outwardly of the sensor if they are integrated as a unitary structure while the sensor would have to be installed in a position near the door which would constitute the transmitter (antenna) to position outside the door because it would enhance the communication efficient with the remote device (also see figure 4 and col. 5, lines 7-23 and col. 6, line 49 – col. 9, line 23).

As to **claim 35**, the combination teaches the means for establishing a baseline pressure value (see rejection of claim 33-34).

It would have been obvious to one of ordinary skill in the art to includes at least one pressure value existing at the time of electronic securement of the container because it would provide as a initialization for the device and facilitate the determination of the container's condition.

As to **claim 36-37**, the combination meets the limitation of claim except it fails to specific mention the means for transmitting information is disposed outwardly of the sensor and adapted for positioning outside the door of the container.

However, it would have been obvious to one of ordinary skill in the art the transmitter would position outwardly of the sensor if they are integrated as a unitary structure while the sensor would have to be installed in a position near the door which would constitute the transmitter to position outside the door because it would enhance the communication efficient with the remote device ("Mayor": figure 4 and col. 5, lines 7-23 and col. 6, line 49 – col. 9, line 23).

Art Unit: 2612

17. Claims 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gagnon et al. (US 5,939,982), in view of Keillor et al. (US 5,917,433).

As to **claim 38-39**, Gagnon teaches additional sensors are used for monitoring the condition of the container (col. 5, lines 15-25).

It fails to show the at least one sensed condition comprises a sensed light, and wherein the means for sensing comprises a light sensor disposed inside the container and a sensed motion, and wherein the means for sensing comprises a motion sensor disposed inside the container.

Keillor teaches the at least one sensed condition comprises a sensed light, and wherein the means for sensing comprises a light sensor disposed inside the container, in addition to the door sensor (col. 7, lines 1-17). Further, it teaches a sensed motion, and wherein the means for sensing comprises a motion sensor disposed inside the container.

It would have been obvious to one of ordinary skill in the art to combine the light sensor as taught by Keillor to the multiple sensors monitoring device as taught by Gagnon because the light sensor provide detection for monitoring the noise level within the container (Keillor: col. 7, lines 1-17). In addition, the combination of the motion sensor to Gagnon's would provide detection for any movement within the container.

18. Claims 14-17, 19, 22, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wortham (US 5,999,091), in view of Raspotnik (US 5,832,090).

Regarding **claim 14**, Wortham teaches a method of electronically securing a container comprises a tag unit 26 is provided and initialized for each selected container 12. Initialization of each tag unit may include storing an identification for the corresponding trailer into a memory of the tag unit wherein the collected information is interrogated by a reader 28 and relayed to a host (figure 1, col. 6, lines 62-68).

If fails to show the used of encrypted security code with the container.

In the analogous art of RF transponder system, Raspotnik teaches a method comprises: transmitting a request to a server; generating by the server of a mathematically-unique security key in response to receipt of the request; encrypting, by the server, of the security key; transmitting the unique and encrypted security key to the device disposed within the container; decrypting, by the device, of the encrypted security key; and storing, by the device, of the decrypted security key (figure 1; col. 4, line 7 – col. 6, line 35).

It would have been obvious to one of ordinary skill in the art to combine the encrypted security key system as taught by Raspotnik to the RF transponder system for cargo container of Wortham because it would facilitate the security for data transmission between the reader and the RF transponder, wherein the fixed server would provider a additional level of security to store and generate the security key rather than having mobile reader stores the security key. In addition, the security key would prevent any duplication of theft of ID code from the container.

As to **claim 15**, Wortham teaches selected an intermodal container to electronically secure (figure 1).

It would have been obvious to one of ordinary skill in the art the intermodal container is the type having at least one door in a pivotal relationship with the container if it is as the conventional intermodal container (see US 6,400,266 for conventional intermodal container).

As to **claim 16**, Wortham teaches the step of selecting a container to secure includes the step of selecting, by a reader, a container to secure (col. 3, line 39 – col. 4, line 53).

As to **claim 17**, Wortham teaches network services center and host may be associated with one or more trucking companies, delivery companies, or any other entities which operate, own, use, or otherwise, manager container (col. 3, lines 39-67).

It would have been obvious to one of ordinary skill in the art the management facility would manage of selecting a container which allowing at least one authorized party access to a software backbone (through network); and selecting, by the at least one authorized party, a container to secure via the software backbone based upon the structure of the management team though the network.

As to **claim 19**, Wortham teaches securing at least one sensor inside the container (col. 8, lines 58-67); and securing at least one transmitter 38 relative to the container in a position permitting radio transmission to a location outside of the container (figure 1-2; col. 7, line 39- col. 9, line 56).

As to **claim 22**, Wortham teaches the step of securing at least one sensor inside the container includes the step of securing a temperature sensor inside the container (col. 8, lines 58-67).

Regarding **claim 32**, Wortham teaches using a tag unit, server and reader to monitor the security condition of container (figure 1).

In the analogous art of RF transponder system, Raspotnik teaches a method comprises: transmitting a request to a server; generating by the server of a mathematically-unique security key in response to receipt of the request; encrypting, by the server, of the security key; transmitting the unique and encrypted security key to the device disposed within the container; decrypting, by the device, of the encrypted security key; and storing, by the device, of the decrypted security key (figure 1; col. 4, line 7 – col. 6, line 35).

It would have been obvious to one of ordinary skill in the art to combine the encrypted security key system as taught by Raspotnik to the RF transponder system for cargo container of Wortham because it would facilitate the security for data transmission between the reader and the RF transponder, wherein the fixed server would provide an additional level of security to store and generate the security key rather than having mobile reader stores the security key. In addition, the security key would prevent any duplication of theft of ID code from the container.

Raspotnik also teaches transmitting, by a reader, of a device challenge to a device associated with the container; generating, by the device, of a device response to the device challenge; transmitting, by the device, of the device response to the reader; transmitting, by the reader, of a server challenge to a server; generating, by the server, of a server response to the server challenge; transmitting, by the server, of the server response to the reader; comparing the server response and the device response; and

Art Unit: 2612

wherein, if the server response and the device response are equal, a alert condition is deemed to have not occurred (col. 5, line 35 – col. 6, line 36).

It would have been obvious to one of ordinary skill in the art the combination would associate the comparison result for a security breach condition since the container was electronically secured as stated above.

19. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wortham (US 5,999,091), in view of Raspotnik (US 5,832,090), in further view of Mayor (U.S. 6,737,962).

As to **claim 18**, the combination meets the limitation of claim except it fails to show the step of disposing the electronic securing device within the container includes the step of positioning the electronic securing device adjacent the door for sensing the pivotal relationship thereof relative to the container.

In the analogous art of container monitoring, Mayor teaches the device 128 can be placed on any trailer (col. 4, lines 38-40) and the owner and/or installer would determine where on the trailer the trailer he or she wishes to install housing and the enclosed contents (col. 8, lines 20-23). Also, it is inherently teaches the container includes at least one door when constitutes with the door sensor (col. 6, lines 46-53 and col. 8, lines 8-19).

It fails to specific mention it is adapted for mounting relative to the container between a region of the door and an adjacent region of the container.

However, Mayor states that the device (128) encloses various components of alarm and includes door sensor inputs (col. 4, lines 11-15 and col. 6, lines 46-56).

It would have been obvious to one of ordinary skill in the art the door sensors as taught by Mayor could constitute with the device module 128 as a unitary structure to enhance the portable alarm kit feature to facilitate the steps of installation. Further, it would have been obvious to one of ordinary skill in the art the unitary structure device as above would be installed at a position relative to the container between a region of the door and an adjacent region of the container when incorporate the operation of the door sensor because the device needs to be proximate with the door.

20. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wortham (US 5,999,091), in view of Raspotnik (US 5,832,090), in further view of Keillor et al. (US 5,917,433).

As to **claim 20 and 21**, Wortham teaches multiple sensors are used for monitoring the condition of the container (col. 8, lines 58-67).

It fails to show the at least one sensed condition comprises a sensed light, and wherein the means for sensing comprises a light sensor disposed inside the container and a sensed motion, and wherein the means for sensing comprises a motion sensor disposed inside the container.

Keillor teaches the at least one sensed condition comprises a sensed light, and wherein the means for sensing comprises a light sensor disposed inside the container, in addition to the door sensor (col. 7, lines 1-17). Further, it teaches a sensed motion,

Art Unit: 2612

and wherein the means for sensing comprises a motion sensor disposed inside the container.

It would have been obvious to one of ordinary skill in the art to combine the light sensor as taught by Keillor to the multiple sensors monitoring device as taught by Wortham because the light sensor provide detection for monitoring the noise level within the container (Keillor: col. 7, lines 1-17). In addition, the combination of the motion sensor to Mayor's would provide detection for any movement within the container.

21. Claims 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wortham (US 5,999,091), in view of Raspotnik (US 5,832,090), in further view of Gallagher II et al. (US 6,963,270).

Regarding **claim 28**, Wortham teaches a method of electronically securing a container comprises a tag unit 26 is provided and initialized for each selected container 12. Initialization of each tag unit may include storing an identification for the corresponding trailer into a memory of the tag unit wherein the collected information is interrogated by a reader 28 and relayed to a host (figure 1, col. 6, lines 62-68).

If fails to show using an encrypted security code with the container and does not specific mention selecting a container to disarm.

In the analogous art of RF transponder system, Raspotnik teaches a method comprises: transmitting a request to a server; generating by the server of a mathematically-unique security key in response to receipt of the request; encrypting, by the server, of the security key; transmitting the unique and encrypted security key to the

Art Unit: 2612

device disposed within the container; decrypting, by the device, of the encrypted security key; and storing, by the device, of the decrypted security key (figure 1; col. 4, line 7 – col. 6, line 35).

It would have been obvious to one of ordinary skill in the art to combine the encrypted security key system as taught by Raspotnik to the RF transponder system for cargo container of Wortham because it would facilitate the security for data transmission between the reader and the RF transponder, wherein the fixed server would provide an additional level of security to store and generate the security key rather than having the mobile reader store the security key. In addition, the security key would prevent any duplication of theft of ID code from the container.

In the analogous art of RF transponder system, Gallagher teaches the reader generates a code to instruct the RF transponder to go into an inactive mode (disarm) (col. 5, lines 10-22).

It would have been obvious to one of ordinary skill in the art to disarm the security device because it would allow the container to go through a security checkpoint if it passed inspection, for example. In addition, it would reduce the cost and power consumption if the security device is not in use.

As to **claim 29**, Wortham teaches the step of selecting a container to secure includes the step of selecting, by a reader, a container to secure (col. 3, line 39 – col. 4, line 53) and the combination shows selecting for disarm as stated above.

It would have been obvious to one of ordinary skill in the art that further information relative to electronic securing of the container is not needed because

Art Unit: 2612

the security device is not active to any use after disarm and it would reduce the storage capacity for additional information which not concern.

As to **claim 30**, the combination meets the limitation of claim except it fails to show the step of disengaging from logging at least one condition sensed by the device of the disarmed container.

However, it would have been obvious to one of ordinary skill in the art to release the security device from the disarmed container because it would allow the security device to use on other active container in order to increase the availability of parts.

As to **claim 31**, Wortham teaches network services center and host may be associated with one or more trucking companies, delivery companies, or any other entities which operate, own, use, or otherwise, manager container (col. 3, lines 39-67).

It would have been obvious to one of ordinary skill in the art the management facility would manage of selecting a container which allowing at least one authorized party access to a software backbone (through network); and selecting, by the at least one authorized party, a container to secure via the software backbone based upon the structure of the management team though the network.

Allowable Subject Matter

22. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

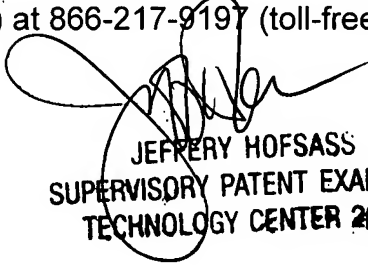
23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Hsiao et al. (U.S. 2003/0233189) "Mobile trailer tracking system and method"
- b. Pedersen et al. (U.S. 5,831,519) "Traffic supervision system for vehicle"
- c. Moskowitz et al. (U.S. 6,483,433) "Method and apparatus for notifying of receipt"

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoi C. Lau whose telephone number is (571)272-8547. The examiner can normally be reached on M- F 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (571)272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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